



Improving EPA's Performance with New Tools & Approaches

Fostering Innovation at EPA: A Modular Evaluation Approach

The National Center for Environmental Innovation (NCEI) promotes the use of new tools and approaches that not only solve, but prevent environmental problems. This series of fact sheets introduces the Agency to such methods, which facilitate the innovation cycle of experimentation, evaluation, and wide-scale implementation.

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Why were the Innovation Analysis Modules Developed?

EPA's National Center for Innovation (NCEI) promotes the use of innovative approaches to environmental problem-solving efforts that deliver improved environmental results. As part of this process, NCEI promotes and conducts rigorous evaluations to determine whether innovations deliver environmental results that surpass the traditional way of doing business and to identify lessons that can be applied more broadly. To guide its efforts and ensure consistency, NCEI developed a set of innovation analysis modules that outline core questions to be answered as part of any evaluation, either within EPA or outside the Agency.

Because the field of environmental evaluation is fairly young, and EPA did not have one comprehensive method for evaluating innovative projects, these modules were created to foster analysis and evaluation under a uniform, yet flexible, framework.



What are the Innovation Analysis Modules?

Innovation Analysis Modules include a series of questions that encourage critical thinking and assessment of successes, obstacles, and lessons learned. The modules can be applied in a variety of scenarios, including developing an innovative project, assessing environmental outcomes, characterizing the transferability of an innovation and informing future evaluative efforts. In order to get a more complete picture of the innovation, we recommend that innovation practitioners consider using all six modules. However, if time, resources and information are limiting factors, the innovation practitioner can pick and choose the modules that are most applicable to his/her innovation.

1. Mapping the Innovation

Provides a systematic way to map the logic behind the innovation by asking the practitioner to list the goals, resources, activities, partners/customers, outputs, and intended outcomes of the innovation. This module also gathers background information to describe the innovation, its scope, goals, purpose, regulatory and programmatic issues, participants, and stakeholders.

2. Assessing the Environmental Results of the Innovation

Assists innovation practitioners in measuring the environmental results of the innovation. Questions regarding the establishment of baseline data, environmental indicators, and performance measures are included.

3. Assessing the Costs and Cost Savings of the Innovation

Outlines the economic impact of the innovation and gathers information necessary to conduct a cost-effectiveness assessment.

4. Enforcement and Compliance Assurance

Assesses the practical enforceability of the innovation. This module may require the active participation of Federal and State enforcement and compliance staff.

5. Public Involvement and Stakeholder Feedback

Gathers information regarding stakeholder/public participation in the innovative process.

6. Assessing the Potential Transferability of the Innovation

Presents questions that rank innovations on a five-part transferability scale, with the objective of determining whether the innovation is ready for broad-scale application.

The module questions are formulated to be flexible enough to fit a variety of innovations and experiments that are conducted both inside and outside EPA. The modules are based on knowledge of the innovation cycle and the transferability potential of innovations.

What is the Companion User's Guide?

The Companion User's Guide is designed to assist innovation practitioners with the application and how to answer the questions of each module. Each chapter corresponds to the actual module, and may be used independently or in combination with other modules, and is intended to serve three purposes:

- 1) Inform the evaluative process
- 2) Help an innovator plan for evaluation at the beginning or intermediate stage of an innovation
- 3) Help serve as a innovation management/development tool

Who should use the Innovation Analysis Modules?

The modules are designed to help innovation practitioners and programs assess and learn from an environmental innovation during any part of the innovation life-cycle. The modules help innovation practitioners to analyze critical aspects of innovation projects to identify successes, obstacles and lessons learned. EPA, States and organizations can use the modules to better manage their environmental innovations.

How can the Innovation Analysis Modules Help You?

The modules fill a critical analytical need by providing the practitioner with a flexible framework for collecting and examining much needed information on innovations that can inform future evaluation efforts. The modules can help mold future projects and set strategic direction. The modules can provide invaluable information to help innovation practitioners and staff:

- Design and logically map an innovative project;
- Collect information to assess the innovation;
- Identify types of data to assess the outcomes of the innovation;
- Show relative advantage of an innovation over current approaches;
- Use the information presented in the modules to improve the performance of the innovation so that it can be transferred and more broadly applied; and
- Provide data and information to inform future evaluation efforts.

What is the Status of the Modules and the Companion User's Guide?

The modules are currently in draft form and continue to be tested on a series of innovative projects. The Companion User's Guide has been developed to guide an innovation practitioner through each of the modules and how to answer the module questions. The modules and Companion User's Guide are currently available for comment and review. Feedback is appreciated on this tool and how it is being used.

Areas of Focus for Innovation Analysis

1. Mapping the Innovation
2. Assessing the Environmental Results
3. Examining the Cost and Cost-Effectiveness
4. Evaluate Public Involvement
5. Promote Transferability